## ABSTRACT OF THE DISCLOSURE

A processor includes multiple protected operating modes. In at least one of the protected operating modes, segmentation is disabled or partially disabled. In other words, segment descriptor information may not affect the execution of an instruction specifying the segment register storing the segment descriptor information. In other protected operating modes, segmentation may not be disabled (e.g. segment descriptor information does affect the execution of the instruction specifying the segment register storing the segment descriptor information). However, segment load instructions may be performed in any protected operating mode (including checking segment descriptors for exception conditions during the segment load), which may allow a code sequence executing in one of the protected operating modes in which segmentation is disabled to establish segments in the segment registers for use by other code sequences executing in other protected operating modes.